

IN THE SPECIFICATION:

Please amend the specification as follows.

Please amend paragraph [0001] as follows:

[0001] This application is a continuation of Application Serial No. 09/778,594, filed on February 7, 2001, which is a continuation-in-part of Application Serial No. 09/232,392, filed on January 15, 1999, which is ~~currently pending~~ now U.S. Patent No. 6,210,392 B1. The contents of Application Serial No. 09/232,392 and 09/778,594 are incorporated herein by reference.

Please replace paragraph [0021] with the following amended paragraph:

[0021] Various medicaments can be used in the method of the present invention depending on the needs of the individual patient. As indicated above, a medicament suitable for the treatment of a stenosis or disease de novo, inhibiting a restenosis by minimizing the effects of a previous intravascular procedure and/or inhibiting a stenosis in a vessel may be used. For example, to inhibit a restenosis, the medicament may contain an anti-proliferative agent which inhibits the proliferation of smooth muscle cell growth in a vessel under certain pathological conditions. Further, medicaments which selectively kill rapidly dividing cells can also be used to inhibit the proliferation of smooth tissue growth. Other suitable medicaments can include anti-proliferative agents such as methotrexate, prednisone, adriamycin, mitomycin[[c]] C, protein synthesis inhibitors, toxin fragments such as pseudomonas[[.]] exotoxin (PE) or Ricin A (RA) Toxin, and radioactive isotopes such as ¹¹¹Indium, ⁹⁰Yttrium, ⁶⁷Gallium, ^{99m}Tc(Technetium 99), ²⁰⁵Thallium, and ³²P(Phosphorous 32) radiopharmaceuticals. Alternatively, a medicament which stimulates the production of collateral vessels can be delivered to the target area by the present method. This provides preventative treatment for the patient by creating new collateral vessels in the event the original vessel develops a stenosis. A medicament which includes an angiogenesis factor can be utilized for this purpose.

Please replace paragraph [0024] with the following amended paragraph:

[0024] Alternatively, the medicament could include a binder secured to the active component of the medicament. The binder binds, attaches or crosslinks to at least a portion of the wall of the vessel. The binder can include a ligand which binds to a portion of the vessel wall such as collagen or the smooth muscle cell component of the vessel wall. This ensures that the bulk of the active component of the medicament remains in the vessel wall and minimizes the amount of the active component of the medicament which is washed away into the blood stream. Examples of ligands binding to the vessel wall components include PDGF receptors, adhesive molecules including[[,]] but not limited to certain molecules[[.]] of the integrin family, and receptors on activated platelets such as thrombin receptors. Alternatively, for example, ~~phosphors tridentite~~ phosphorous tridentate which binds to collagen can be utilized. Further, a binder that has a direct affinity to form ionic bonds, covalent bonds or Van der Waal attractions to the wall of the vessel or some component thereof can be used in the method of the present invention.

Please replace paragraph [0029] with the following amended paragraph:

[0029] FIG. 1C is a perspective view of a portion of an artery of a patient showing a circumferential ~~dispersment~~ dispersement of a medicament (in phantom) in accordance with the method of the present invention;

Please replace paragraph [0069] with the following amended paragraph:

[0069] Referring now to FIG. 3A, the dispensers 20 are mounted on the tubular sleeve 18 so that the fluid channel 48 of each respective dispenser 20 is aligned with a hole 52 in the tubular sleeve 18. This is done to establish fluid communication between the particular dispenser 20 and the fluid passageway 26. As a practical matter, it may be preferable in the construction of the device 10 to first mount the dispenser 20 on the tubular sleeve 18, which can be done in any manner well known in the pertinent art, such as by bonding, and then ~~piecee~~ piercing a hole 52 in the tubular sleeve 18 through the dispenser 20.

Please replace paragraph [0083] with the following amended paragraph::

[0083] The composition of the fluid medicament 13 to be injected into the wall 23 of the blood vessel 11 depends upon the treatment being performed and the physical characteristics of the patient 12. More specifically, the fluid medicament 13 can be designed to treat a stenosis or disease de novo, inhibit a restenosis by minimizing the effects of a previous intravascular procedure and/or inhibit a stenosis in a blood vessel 11. For example, to inhibit a restenosis, the fluid medicament 13 can contain anti-proliferative agents which inhibit the proliferation of smooth muscle cell growth in the vessel in certain pathological conditions. These fluids selectively kill rapidly dividing cells and can be utilized to inhibit the proliferation of smooth tissue growth. Suitable fluids can include anti-proliferative agents such as methotrexate, prednisone, adriamycin, mitomycin[[c]] C, protein synthesis inhibitors, toxin fragments such as pseudomonas[[,]] exotoxin_(PE) or Ricin A (RA) Toxin, and radioactive isotopes 112 such as ¹¹¹Indium, ⁹⁰Yttrium, ⁶⁷Gallium, ^{99m}Tc (Technetium 99), ²⁰⁵Thallium, and ³²P (Phosphorous 32) radiopharmaceuticals. It is believed that the present method is uniquely suited to safely deliver toxic fluid medicaments 13 into the wall 23 of the blood vessel 11 while minimizing the amount of fluid medicament 13 which is washed away into the blood stream.

Please replace paragraph [0090] with the following amended paragraph:

[0090] Alternatively, referring to FIGS. 15A and 15B, the fluid medicament 13 may include a binder 116, the active component 115 and the carrier component 117. The binder 116 is secured to the active component 115 of the fluid medicament 13. The binder 116 is adapted to bind, attach and/or crosslink to at least a portion of the wall 23 of the blood vessel 11. For example, the binder 116 could include a ligand which binds to a portion of the wall 23 of the blood vessel 11 such as collagen or the smooth muscle cell component of the wall 23 of the blood vessel 11. Because the binder 116 is secured to the active component 115, this ensures that the bulk of the active component 115 of the fluid medicament 13 remains in the wall 23 of the blood vessel 11 and minimizes the amount of the active component 115 of the fluid medicament 13 which is washed away into the blood stream. Examples of ligands capable of binding to the arterial wall

components include PDGF receptors, adhesive molecules including, but not limited to certain molecules of the integrin family, and receptors on activated platelets such as thrombin receptors. Another suitable type of ligand is sold under the name CERETEC.RTM. by Amersham located in Arlington Heights, Ill. Alternatively, for example, ~~phosphors tridentite~~ phosphorous tridentate which binds to collagen can be utilized. In yet an alternative embodiment, the binder 116 can have a direct affinity to form ionic bonds, covalent bonds or Van der Waal attractions with the wall 23 of the blood vessel 11 or some component thereof.

Please replace paragraph [0091] with the following amended paragraph:

[0091] Alternatively, as illustrated in FIGS. 16A-16C, the fluid medicament 13 can be used for gene therapy on the wall 23 of the blood vessel 11. In this embodiment, the fluid medicament 13 can include a suitable viral vector 118 which is adapted to infect a cell 120 and replace, modulate, inhibit or enhance one of the cell genes 122 within the cell 120. For example, the fluid medicament 13 could include a retroviral, adenoviral vectors or Adenovirus Associated Vectors (~~AV~~) (AAV) carrying the appropriate DNA payload for appropriate gene switching. Alternatively, for example, naked DNA or polycation-condensed DNA could be utilized for gene therapy. The method of the present invention allows for the use of fluid medicaments 13 which genetically alter the treatment area 54 of the wall 23 of the blood vessel 11 without effecting the rest of the body.